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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/754,682	01/03/2001	Hyun Mun Kim	42390P10587	2896

8791 7590 01/26/2006

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EXAMINER	
WONG, ALLEN C	

ART UNIT	PAPER NUMBER
2613	

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/754,682	KIM ET AL.	
	Examiner	Art Unit	
	Allen Wong	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 November 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *44-68* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *44-68* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/14/05 have been fully read and considered but they are not persuasive.

Regarding the amendment to claims 44 and 58, the 35 U.S.C. 101 rejection is withdrawn.

Regarding lines 6-9 on page 8 of applicant's remarks about claim 44, applicant states that Nickerson does not disclose a lookup table comprising a relationship between the number of bits and variation in pixel signal values of a plurality of video images for a variety of quantization step sizes. The examiner respectfully disagrees. Nickerson's col.2, ln.40-52 discloses a storage medium that has one or more quantization lookup tables, in that, for instance, element 508 states quantized coefficient lookup table, and elements 502, 504, 508, 510, 514 of fig.5 are more lookup tables that help the determination of the proper quantization from the quantized coefficient lookup table to correlate the number of bits for encoding a plurality of image data. Further, Nickerson's col.6, ln.49-67, fig.3, element 312 utilizes the data from element 310 where lookup tables are used, as shown in fig.5 which shows the details of element 310, and that element 310 has a table 514 where it takes the number of bits and the variation in pixel signal values into account, and that information is sent to element 312 to generate a set of final Q levels or a set of quantization step sizes to properly encode the video images by adjusting the quantization step sizes to properly modify the video encoding bit rate.

Thus, Nickerson teaches that lookup table 514 takes the number of bits and the variation in pixel signal values of a plurality of video images for a variety of quantization steps into account as disclosed in claim 44. Nickerson meets the broad limitations of claim 44. Dependent claims 45 and 46 are rejected for at least the same reasons as independent claim 44.

Regarding lines 4-6 on page 9 of applicant's remarks, applicant states that Nickerson does not disclose a lookup table comprising a relationship between video encoding rate and variation in pixel signal values. The examiner respectfully disagrees. As previously stated in the above paragraph and in the rejection below, Nickerson's col.2, ln.40-52 discloses a storage medium that has one or more quantization lookup tables, in that, for instance, element 508 states quantized coefficient lookup table, and elements 502, 504, 508, 510, 514 of fig.5 are more lookup tables that help the determination of the proper quantization from the quantized coefficient lookup table to correlate the number of bits for encoding a plurality of image data. Further, Nickerson's col.6, ln.49-67, fig.3, element 312 utilizes the data from element 310 where lookup tables are used, as shown in fig.5 which shows the details of element 310, and that element 310 has a table 514 where it takes the number of bits and the variation in pixel signal values into account, and that information is sent to element 312 to generate a set of final Q levels or a set of quantization step sizes to properly encode the video images by adjusting the quantization step sizes to properly modify the video encoding bit rate. Independent claims 53, 58 and 63 are rejected for similar reasons as claim 47.

Dependent claims 48-52, 59-62 and 64-68 are rejected for similar reasons as stated above.

The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art to combine the teachings of Zhang and Nickerson together, as a whole, for efficiently, precisely, robustly encoding video data while maintain high image quality and reducing costs, as disclosed in Nickerson's column 2, lines 29-37.

Regarding the last paragraph on page 9 of applicant's remarks about claims 54-57, applicant traverses the rejection. The examiner respectfully disagrees. The rejection of claims 54-57 is reasonable and valid for at least the reasons stated above and in the rejection below. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art to take Howe's teaching of

silicon implementation of a video encoder into the combined systems of Zhang and Nickerson for permitting video encoding by use of microcode and firmware via silicon integrated circuits (IC) so as to efficiently encoding video image data in a highly efficient manner. Doing so would ensure compatible, cost-effective, efficient, precise, video encoding and decoding of high quality video images for display, as disclosed in Howe's column 3, lines 1-13.

All of the broad limitations of the claims are met, and thus, the rejection is maintained.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 44-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Nickerson (5,926,222).

Regarding claim 44, Nickerson discloses an article comprising a machine-accessible medium having stored thereon instructions that, when executed by a machine, cause the machine (col.2, ln.40-43 and col.4, ln.63-65):

to employ a lookup table and a bit budget to perform video encoding rate control (col.2, ln.40-52, Nickerson discloses a storage medium that has one or more quantization lookup tables, as illustrated by elements 502, 504, 508, 510, 514 of fig.5,

where fig.5 is a detailed illustration of bit-rate estimator element 310 of fig.3 where video encoding rate control is performed; col.4, ln.63-65, Nickerson discloses a processor that performs video encoding by executing instructions on how, what and when to encode the video data; and fig.5 is a detailed illustration of element 310 of fig.3 where bit-rate estimator uses quantization lookup table, quantization coefficient lookup table, and bit contribution (bit budget) lookup tables to perform video encoding rate control), said table comprising a relationship between the number of bits and variation in pixel signal values of a plurality of video images for a variety of quantization step sizes (col.6, ln.49-67, in fig.3, element 312 uses the data from element 310 where lookup tables are used, as shown in fig.5 which shows the details of element 310, and that element 310 has a table 514 where it takes the number of bits and the variation in pixel signal values into account, and that information is sent to element 312 to generate a set of final Q levels or a set of quantization step sizes to properly encode the video images by adjusting the quantization step sizes to properly change the video encoding bit rate).

Regarding claim 45, Nickerson discloses the article of claim 44, wherein the look up table is employed to perform video encoding rate control when the instructions are executed by a processor (col.4, ln.63-65, Nickerson discloses a processor that performs video encoding by executing instructions on how, what and when to encode the video data; in col.7, ln.64 to col.8, ln. 3 and fig.5 is a detailed illustration of bit-rate estimator element 310 of fig.3 where the bit-rate estimator uses quantization lookup table, quantization coefficient lookup table, and bit contribution lookup tables, as well as the

zero-run lookup table with a feedback loop to the bit contribution index generator to perform video encoding rate control).

Regarding claim 46, Nickerson discloses the article of claim 45, wherein the variation in pixel signal values comprises the sum of absolute differences SAD (col.5, ln.61 to col.6, ln.3).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 47-53 and 58-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang (5,812,195) in view of Nickerson (5,926,222).

Regarding claim 47, Zhang discloses a method comprising:

obtaining a measurement of variation in pixel values for at least a portion of a video image (col.9, ln.65 to col.10, ln.25, Zhang discloses the computation of the measurement of the sum of absolute values of the error signal (differences), variation of pixel values, or the SAD is done by error analyzer 203);

using the measurement of variation in pixel values as an index to determine a quantization value to be used in encoding the video image (col.9, ln.65 to col.10, ln.25, Zhang discloses the computation of the measurement of the sum of absolute values of the error signal (differences), variation of pixel values, or the SAD is done by error analyzer 203, and later, the results of element 203 is sent to element 204, then to

element 205, next to element 210, and then to elements 211 and 212, where element 211 will adjust the video encoding rate by adjusting the quantization step size; and col.14, ln.9-19; Zhang discloses the coefficient predictor 211 to adjust the quantization step size for properly adjusting the video encoding rate, wherein the allocation of bits, or bit budget, was taken into account depending on the amount of bits in buffer 212).

Although Zhang does not specifically disclose the term "lookup table" that comprises a relationship between video encoding rate and variation in pixel signal values. However, Nickerson teaches the use of quantization lookup tables, wherein the lookup table comprises a relationship between video encoding rate and variation in pixel signal values (see col.2, ln.40-52 and fig.5, and note element 310 of fig.3 elaborates the use of quantization lookup tables to establish a relationship between the video encoding rate and the variation in pixel signal values, where "pixel data" and "SAD measures" are taken into account along with "target bitrate" to establish a link or relation between the video encoding rate and the variation in pixel signal values). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Zhang and Nickerson together, as a whole, for efficiently, precisely, robustly encoding video data while maintain high image quality and reducing costs (Nickerson col.2, ln.29-37).

Regarding claims 48, 59 and 64, Zhang discloses the quantization value comprises quantization step size (col.9, ln.65 to col.10, ln.25); and video encoding rate comprises a number of bits needed to encode the portion of video image (fig.2, note "transmission rate" is the video encoding rate). Zhang does not specifically disclose the table comprises a relationship between the number of bits and variation in pixel signal

values of a plurality of video images for a plurality of quantization step sizes. However, Nickerson teaches the table comprises a relationship between the number of bits and variation in pixel signal values of a plurality of video images for a plurality of quantization step sizes (see col.2, ln.40-52 and fig.5, and note element 310 of fig.3 elaborates the use of quantization lookup tables to establish a relationship between the video encoding rate and the variation in pixel signal values, where "pixel data" and "SAD measures" are taken into account along with "target bitrate" to establish a link or relation between the video encoding rate and the variation in pixel signal values). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Zhang and Nickerson together, as a whole, for efficiently, precisely, robustly encoding video data while maintain high image quality and reducing costs (Nickerson col.2, ln.29-37).

Regarding claims 49, 60 and 65, Zhang discloses the plural images comprising different types of macroblocks (col.11, ln.62 to col.12, ln.9; an image block or macroblock can be of intra or inter type, and by changing the coding mode depending on the type, this will change the video encoding rate to where if the block is of *intra* type, then *intra*-frame encoding is done and more bits are allocated to encoding intra type blocks because *intra* frames have more detail since they are the original frames, and if the block is *inter* type, then *inter*-frame encoding is done and less bits are required because *inter* frames have less detail since they are obtained by prediction).

Regarding claims 50, 61 and 66, Zhang discloses wherein the type of macroblocks comprise at least one of the following: intra, inter, 4 MV, and B (col.11, ln.62 to col.12, ln.9; an image block or macroblock can be of intra or inter type).

Regarding claims 51, 62 and 67, Zhang discloses wherein the measurement of the variation comprises the sum of absolute differences (col.9, ln.65 to col.10, ln.25, Zhang discloses the computation of the measurement of the sum of absolute values of the error signal (differences), variation of pixel values, or the SAD is done by error analyzer 203).

Regarding claims 52 and 68, Zhang discloses wherein the portion of a video image comprises a macroblock (col.5, ln.33-46; note an image is subdivided into image blocks, where image blocks are macroblocks, since technically, an image is subdivided into 30 slices, and one slice is subdivided into 45 macroblocks, so clearly, the video image comprises a macroblock).

Regarding claim 53, Zhang discloses a device comprising:

a mechanism to obtain a measurement of variation in pixel values for at least a portion of a video image (col.9, ln.65 to col.10, ln.25, Zhang discloses the computation of the measurement of the sum of absolute values of the error signal (differences), variation of pixel values, or the SAD is done by error analyzer 203); and to use a measurement of variation in pixel values as an index to determine a quantization value to be used in encoding the video image (col.9, ln.65 to col.10, ln.25, Zhang discloses the computation of the measurement of the sum of absolute values of the error signal (differences), variation of pixel values, or the SAD is done by error analyzer 203, and later, the results of element 203 is sent to element 204, then to element 205, next to element 210, and then to elements 211 and 212, where element 211 will adjust the video encoding rate by adjusting the quantization step size; and col.14, ln.9-19; Zhang

discloses the coefficient predictor 211 to adjust the quantization step size for properly adjusting the video encoding rate, wherein the allocation of bits, or bit budget, was taken into account depending on the amount of bits in buffer 212).

Although Zhang does not specifically disclose the term "lookup table" that comprises a relationship between video encoding rate and variation in pixel signal values. However, Nickerson teaches the use of quantization lookup tables, wherein the lookup table comprises a relationship between video encoding rate and variation in pixel signal values (see col.2, ln.40-52 and fig.5, and note element 310 of fig.3 elaborates the use of quantization lookup tables to establish a relationship between the video encoding rate and the variation in pixel signal values, where "pixel data" and "SAD measures" are taken into account along with "target bitrate" to establish a link or relation between the video encoding rate and the variation in pixel signal values). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Zhang and Nickerson together, as a whole, for efficiently, precisely, robustly encoding video data while maintain high image quality and reducing costs (Nickerson col.2, ln.29-37).

Regarding claim 58, Zhang discloses an article comprising a machine-accessible medium having stored thereon instructions that, when executed, cause a machine to: a storage medium (fig.1, elements 105 and 106 are storage medium in that the communication and storage system 10 can have access to processor 100, where stored instructions are executed; also, in fig.2, 212 and 214 can store encoded video data), said medium having stored thereon instructions that (fig.1, element 106 is a storage unit in that the communication and storage system 10 can have access to processor 100,

where stored instructions are executed, and memory 105 can store instructions and other information), when, executed, cause a machine to:

obtain a measurement of variation in pixel values for at least a portion of a video image (col.9, ln.65 to col.10, ln.25, Zhang discloses the computation of the measurement of the sum of absolute values of the error signal (differences), variation of pixel values, or the SAD is done by error analyzer 203); and

use the measurement of variation in pixel values as an index to determine a quantization value to be used in encoding the video image (col.9, ln.65 to col.10, ln.25, Zhang discloses the computation of the measurement of the sum of absolute values of the error signal (differences), variation of pixel values, or the SAD is done by error analyzer 203, and later, the results of element 203 is sent to element 204, then to element 205, next to element 210, and then to elements 211 and 212, where element 211 will adjust the video encoding rate by adjusting the quantization step size; and col.14, ln.9-19; Zhang discloses the coefficient predictor 211 to adjust the quantization step size for properly adjusting the video encoding rate, wherein the allocation of bits, or bit budget, was taken into account depending on the amount of bits in buffer 212).

Although Zhang does not specifically disclose the term "lookup table" that comprises a relationship between video encoding rate and variation in pixel signal values. However, Nickerson teaches the use of quantization lookup tables, wherein the lookup table comprises a relationship between video encoding rate and variation in pixel signal values (see col.2, ln.40-52 and fig.5, and note element 310 of fig.3 elaborates the use of quantization lookup tables to establish a relationship between the video encoding

rate and the variation in pixel signal values, where "pixel data" and "SAD measures" are taken into account along with "target bitrate" to establish a link or relation between the video encoding rate and the variation in pixel signal values). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Zhang and Nickerson together, as a whole, for efficiently, precisely, robustly encoding video data while maintain high image quality and reducing costs (Nickerson col.2, ln.29-37).

Regarding claim 63, Zhang discloses a system comprising:

a video encoder (fig.2, element 200 is a video encoder that is part of processor 100 of fig.1);

a video input device coupled to said video encoder (fig.2, note the preprocessing & frame memory 201 receives the video or picture input and also fig.1, element 101); and

memory (fig.1, elements 105 and 106);

wherein said memory is coupled to said video encoder to store video encoded by said video encoder (fig.1, elements 105 and 106 can store video data encoded by the video encoder within processor 100, also, in fig.2, elements 212 and 214 can store the encoded video data); and

wherein said video encoder includes a mechanism to obtain a measurement of variation in pixel values for at least a portion of a video image (col.9, ln.65 to col.10, ln.25, Zhang discloses the computation of the measurement of the sum of absolute values of the error signal (differences), variation of pixel values, or the SAD is done by error analyzer 203); and to use the measurement of variation in pixel values as an index

to determine a quantization value to be used in encoding the video image (col.9, ln.65 to col.10, ln.25, Zhang discloses the computation of the measurement of the sum of absolute values of the error signal (differences), variation of pixel values, or the SAD is done by error analyzer 203, and later, the results of element 203 is sent to element 204, then to element 205, next to element 210, and then to elements 211 and 212, where element 211 will adjust the video encoding rate by adjusting the quantization step size; and col.14, ln.9-19; Zhang discloses the coefficient predictor 211 to adjust the quantization step size for properly adjusting the video encoding rate, wherein the allocation of bits, or bit budget, was taken into account depending on the amount of bits in buffer 212).

Although Zhang does not specifically disclose the term "lookup table" that comprises a relationship between video encoding rate and variation in pixel signal values. However, Nickerson teaches the use of quantization lookup tables, wherein the lookup table comprises a relationship between video encoding rate and variation in pixel signal values (see col.2, ln.40-52 and fig.5, and note element 310 of fig.3 elaborates the use of quantization lookup tables to establish a relationship between the video encoding rate and the variation in pixel signal values, where "pixel data" and "SAD measures" are taken into account along with "target bitrate" to establish a link or relation between the video encoding rate and the variation in pixel signal values). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Zhang and Nickerson together, as a whole, for efficiently, precisely, robustly encoding video data while maintain high image quality and reducing costs (Nickerson col.2, ln.29-37).

Claims 54-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang (5,812,195) and Nickerson (5,926,222) in view of Howe (5,900,865).

Regarding claims 54-56, Zhang discloses the use of a processor for processing compression of video images (col.8, ln.40-42). Zhang and Nickerson do not specifically disclose wherein the video encoder is implemented in silicon on at least one integrated circuit, wherein the silicon implementation of the video encoder comprises microcode and firmware. However, Howe teaches the video encoder is implemented in silicon on at least one integrated circuit (col.6, ln.57-63 and col.17, ln.33-50; video encoding is implemented in silicon on at least one integrated circuit (IC); also, it is well known in the art that integrated circuit chips are implemented in silicon for processing video encoding/decoding tasks), wherein the silicon implementation of the video encoder comprises microcode (col.14, ln.28-43) and firmware (col.17, ln.65-66). Therefore, it would have been obvious to one of ordinary skill in the art to take Howe's teaching of silicon implementation of a video encoder into the combined systems of Zhang and Nickerson for permitting video encoding by use of microcode and firmware via silicon integrated circuits (IC) so as to efficiently encoding video image data in a highly efficient manner. Doing so would ensure compatible, cost-effective, efficient, precise, video encoding and decoding of high quality video images for display (col.3, ln.1-13).

Regarding claim 57, Zhang discloses the use of a processor for processing compression of video images (col.8, ln.40-42). Zhang and Nickerson do not specifically

disclose wherein said video encoder is implemented in software capable of executing on a processor. However, Howe teaches the video encoder is implemented in software capable of executing on a processor (col.3, ln.1-13; video encoding software can be applied in a processor). Therefore, it would have been obvious to one of ordinary skill in the art to take Howe's teaching of implementing video encoding software on a processor into Zhang's video compression system for permitting the execution of software so as to efficiently encoding video image data in a highly efficient manner. Doing so would ensure compatible, cost-effective, efficient, precise, video encoding and decoding of high quality video images for display (col.3, ln.1-13).

Conclusion

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Allen Wong
Primary Examiner
Art Unit 2613

AW
1/23/06